Shenzhen Belling Efficiency Testing Laboratory Co.,Ltd.
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LumCAT: LRG4-40K
Luminaire:
Report No:
Test No:
LampCAT:
Lamp flux(lm): 1054.0
Number of Lamps: 1
Length(mm): 0
Phm Type: C

Voltage(V): 120.06
Current(A): 0.0959
Power (W): 11.3150
PF: 0.9827
Ballast type:
Width(mm): 0
Height(mm): 0

Photometric Results

Lumens(lm): 1054.01
Efficiency(%): 100.00%
Lumens(lm)/Power(W): 93.15
Central intensity(cd): 1671.108
Maximum intensity(cd): 1671.108
Angle of maximum intensity: C=0.0 γ=0.0
Beam Angle(50%Imax): [C0/180]Total=42.3
[C90/270]Total=41.5
Field angle(10%Imax): [C0/180]Total=76.2
[C90/270]Total=75.5
Maximum s/h(1/2): C0_180=0.72 C90_270=0.60
Maximum s/h(1/4): C0_180=1.03 C90_270=0.65
Up flux rate of lamp(%): 0.68%
Down flux rate of lamp(%): 99.32%
Up flux rate of LUM(%): 0.68%
Down flux rate of LUM(%): 99.32%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 95.721%

LRG4-40K

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	1671.108	.000	.000	.000%	.000%
5.0	1570.169	38.749	38.749	3.676%	3.676%
10.0	1361.275	104.867	143.616	9.949%	13.626%
15.0	1122.183	147.317	290.933	13.977%	27.602%
20.0	881.512	165.133	456.065	15.667%	43.269%
25.0	625.781	158.087	614.152	14.999%	58.268%
30.0	385.032	127.919	742.072	12.136%	70.404%
35.0	220.691	89.197	831.269	8.463%	78.867%
40.0	143.839	60.819	892.088	5.770%	84.637%
45.0	102.013	45.521	937.609	4.319%	88.956%
50.0	58.987	32.532	970.142	3.087%	92.042%
55.0	41.238	21.792	991.934	2.068%	94.110%
60.0	32.221	16.980	1008.914	1.611%	95.721%
65.0	23.556	13.559	1022.473	1.286%	97.007%
70.0	16.782	10.214	1032.687	.969%	97.976%
75.0	8.913	6.716	1039.403	.637%	98.614%
80.0	5.612	3.886	1043.290	.369%	98.982%
85.0	3.184	2.390	1045.680	.227%	99.209%
90.0	.927	1.126	1046.805	.107%	99.316%
95.0	.927	.507	1047.313	.048%	99.364%
100.0	.966	.514	1047.827	.049%	99.413%
105.0	.940	.510	1048.336	.048%	99.461%
110.0	.992	.505	1048.841	.048%	99.509%
115.0	1.018	.509	1049.350	.048%	99.557%
120.0	.979	.485	1049.836	.046%	99.603%
125.0	1.005	.459	1050.294	.044%	99.647%
130.0	1.096	.457	1050.751	.043%	99.690%
135.0	1.083	.440	1051.191	.042%	99.732%
140.0	1.240	.430	1051.622	.041%	99.773%
145.0	1.423	.444	1052.066	.042%	99.815%
150.0	1.579	.442	1052.508	.042%	99.857%
155.0	1.696	.414	1052.922	.039%	99.896%
160.0	1.814	.368	1053.290	.035%	99.931%
165.0	1.918	.308	1053.598	.029%	99.960%
170.0	1.905	.227	1053.825	.022%	99.982%
175.0	2.023	.141	1053.965	.013%	99.995%
180.0	2.088	.049	1054.015	.005%	100.000%

Zonal flux distribution table

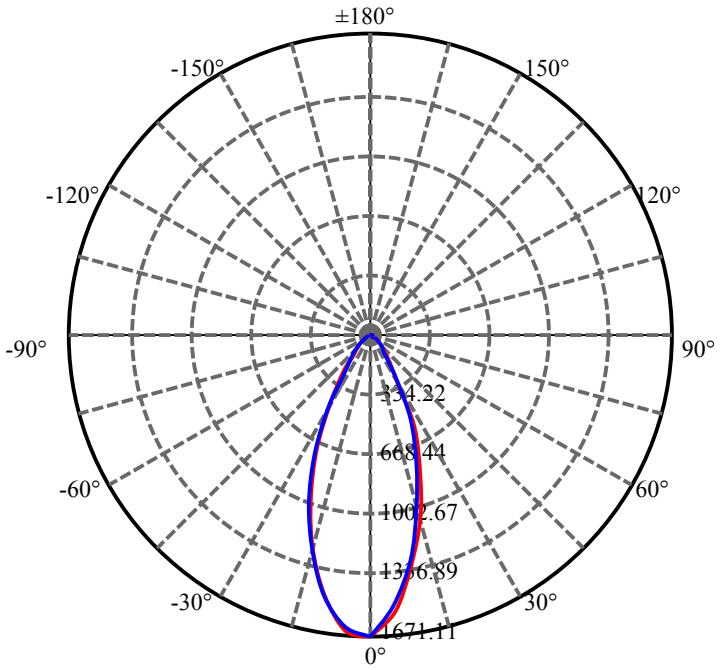
ZONAL LUMEN SUMMARY

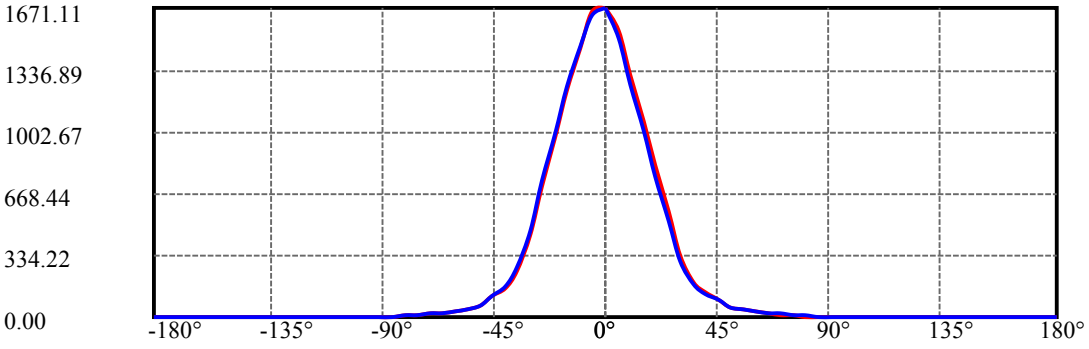
Zone	Lumens	%Lamp	%Fixt
0-30	742.07	70.40%	70.40%
0-40	892.09	84.64%	84.64%
0-60	1008.91	95.72%	95.72%
0-90	1046.81	99.32%	99.32%
0-120	1049.84	99.60%	99.60%
0-180	1054.02	100.00%	100.00%
60-90	54.87	5.21%	5.21%
90-120	4.16	0.39%	0.39%
90-130	5.07	0.48%	0.48%
90-150	6.83	0.65%	0.65%
90-180	8.29	0.79%	0.79%
0-35.98	843.21	80.00%	80.00%

ZONAL LUMEN SUMMARY

0-10	143.62
10-20	312.45
20-30	286.01
30-40	150.02
40-50	78.05
50-60	38.77
60-70	23.77
70-80	10.60
80-90	3.52
90-100	1.02
100-110	1.01
110-120	0.99
120-130	0.92
130-140	0.87
140-150	0.89
150-160	0.78
160-170	0.53
170-180	0.14

Light Distribution Curve [Unit:cd]





C0/C180:

C90/C270:

Field angle(10%Imax):C0/180Left:39.4 Right:36.8

:C90/270Left:39.8 Right:35.7

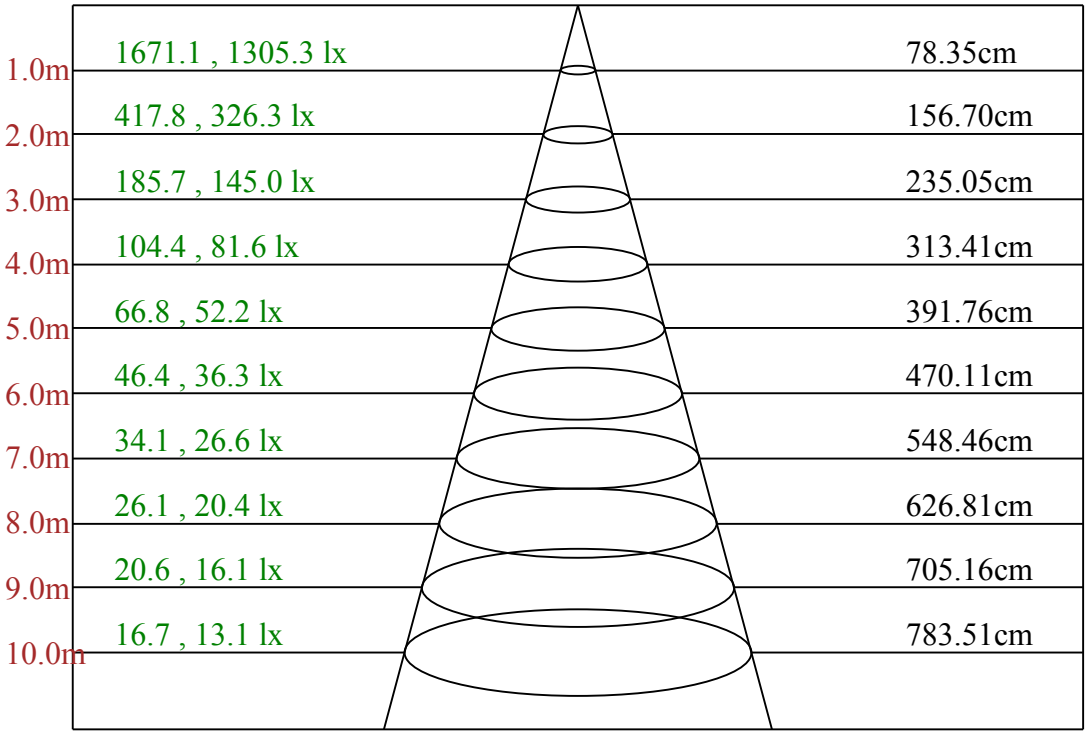
Beam Angle(50%Imax):C0/180Left:22.6 Right:19.7

:C90/270Left:23.1 Right:18.4

Equipment: GMS-3000 Date: Operator: Zac

Temperature(°C): 25 Humidity(%): 58%

Lux distance Curve



Max , Ave

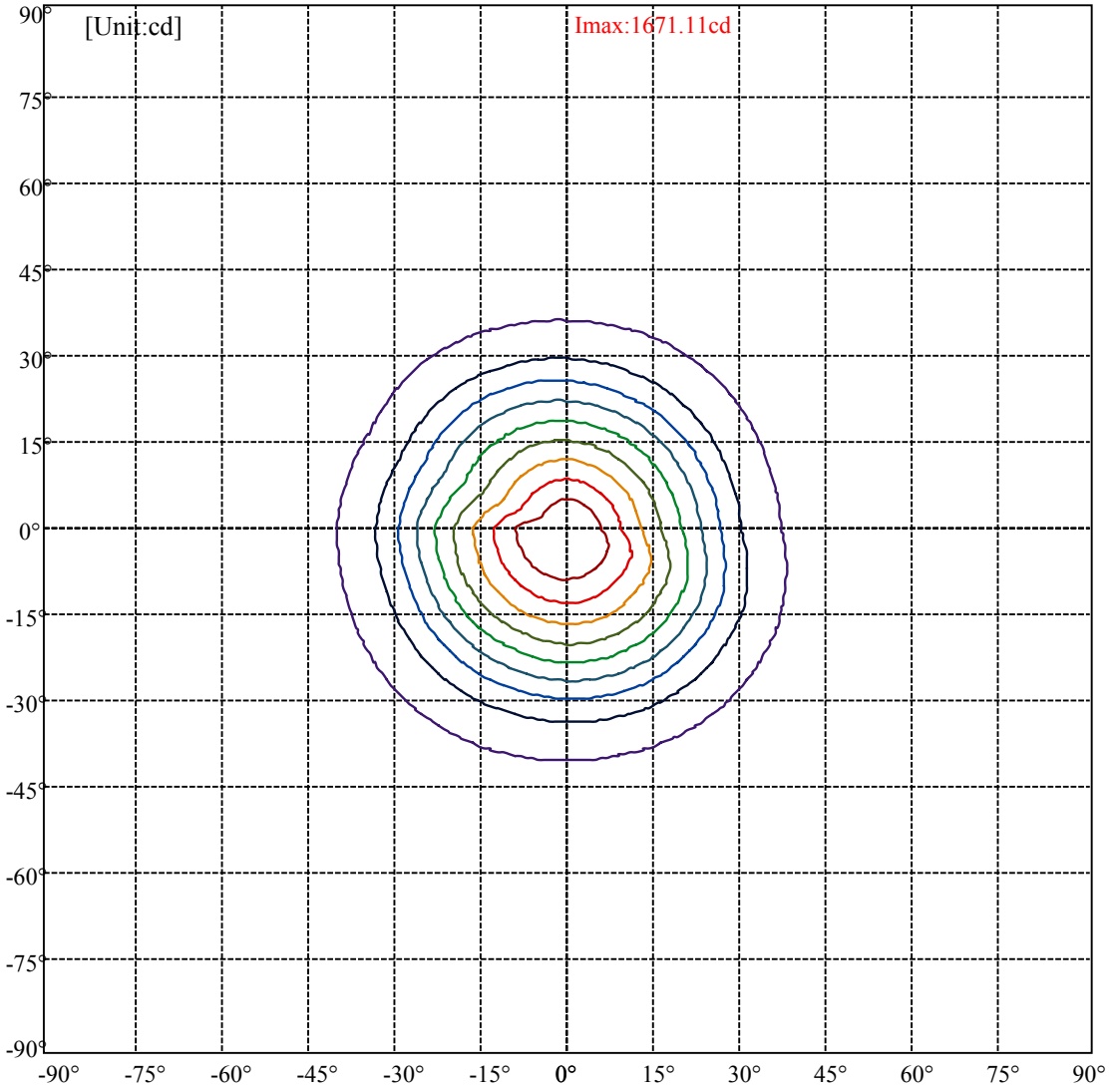
Beam angle of C0plane42.76

Equipment: GMS-3000
Temperature(°C): 25

Date:
Humidity(%): 58%

Operator: Zac

ISO-Intensity(V-H)



(10%Imax) 167.111
(20%Imax) 334.222
(30%Imax) 501.332
(40%Imax) 668.443
(50%Imax) 835.554
(60%Imax) 1002.66
(70%Imax) 1169.78
(80%Imax) 1336.89
(90%Imax) 1504

Equipment: GMS-3000 Date: Operator: Zac
Temperature(°C): 25 Humidity(%): 58%

Intensity data(cd)

C/γ(°)	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0
0.0	1671.11	1543.26	1304.39	1056.12	821.22	566.90	329.07	186.25	133.63
22.5	1671.11	1525.09	1280.17	1023.76	775.91	523.26	293.79	175.39	127.79
45.0	1671.11	1506.51	1255.32	1001.83	748.56	492.36	285.43	172.89	125.07
67.5	1671.11	1505.05	1253.86	990.35	745.01	491.52	283.97	172.68	124.66
90.0	1671.11	1506.30	1260.75	1004.13	758.16	517.20	297.75	173.93	123.82
112.5	1671.11	1500.46	1259.91	1017.91	783.43	544.35	319.47	179.99	125.49
135.0	1671.11	1491.89	1260.96	1019.17	797.63	570.03	346.20	192.73	127.58
157.5	1671.11	1495.65	1264.72	1023.13	800.76	579.85	360.39	197.95	128.62
180.0	1671.11	1648.08	1457.44	1220.03	973.02	708.68	445.38	250.98	156.18
202.5	1671.11	1640.14	1454.73	1222.54	981.58	698.86	431.60	245.13	157.65
225.0	1671.11	1637.01	1460.99	1228.18	975.11	695.10	440.78	252.44	160.78
247.5	1671.11	1632.63	1464.75	1232.14	974.90	710.35	447.88	260.59	164.75
270.0	1671.11	1628.87	1465.17	1241.12	1001.21	732.48	465.42	268.52	163.91
292.5	1671.11	1625.11	1460.37	1242.38	1008.31	744.59	481.50	272.91	163.91
315.0	1671.11	1624.28	1445.96	1223.58	994.94	733.11	477.53	273.11	161.82
337.5	1671.11	1612.37	1430.92	1208.55	964.46	703.87	454.35	255.57	155.77
360.0	1671.11	1543.26	1304.39	1056.12	821.22	566.90	329.07	186.25	133.63

C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	94.38	54.50	39.26	30.69	22.34	15.45	7.31	5.01	2.30
22.5	92.71	53.87	39.26	30.69	22.55	15.66	7.52	5.43	2.92
45.0	90.62	52.20	39.05	30.69	22.55	16.08	8.14	5.43	2.92
67.5	90.20	52.41	38.84	30.69	22.55	15.45	7.73	5.43	2.71
90.0	89.79	52.62	38.63	30.28	22.34	15.66	7.52	5.22	2.51
112.5	90.83	52.20	38.42	30.07	21.92	15.24	7.31	5.43	2.51
135.0	91.04	52.83	37.79	29.23	21.72	15.03	7.10	5.22	2.71
157.5	89.99	53.25	37.79	29.44	21.51	15.03	6.89	5.01	2.71
180.0	110.67	63.27	43.22	34.04	24.85	17.75	10.23	5.64	3.55
202.5	111.29	63.06	43.01	33.62	24.64	17.75	10.44	5.64	3.55
225.0	112.13	64.52	43.01	33.83	24.64	17.75	10.23	5.85	3.76
247.5	114.42	65.36	43.43	33.83	24.64	17.96	10.02	5.85	3.55
270.0	114.22	65.77	44.48	34.45	24.85	17.96	10.44	5.85	3.55
292.5	114.01	66.82	44.68	34.66	25.27	18.17	10.44	6.06	3.97
315.0	114.42	66.40	44.68	34.87	25.27	18.58	10.44	6.26	3.76
337.5	111.50	64.73	44.27	34.45	25.27	19.00	10.86	6.47	3.97
360.0	94.38	54.50	39.26	30.69	22.34	15.45	7.31	5.01	2.30

C/γ(°)	90.0	95.0	100.0	105.0	110.0	115.0	120.0	125.0	130.0
0.0	0.21	0.42	0.21	0.21	0.42	0.00	0.42	0.21	0.42
22.5	0.63	0.63	0.84	0.63	0.84	1.04	0.84	0.84	1.04
45.0	0.84	0.84	0.84	0.84	0.84	1.04	0.84	0.84	1.04
67.5	0.84	0.84	1.04	0.84	0.84	1.04	1.04	1.04	1.04
90.0	0.84	0.84	1.04	0.84	0.84	1.25	0.84	1.04	1.04
112.5	0.63	0.84	0.84	0.84	1.04	1.04	0.84	1.04	1.04
135.0	0.84	0.84	0.84	1.04	0.84	0.84	1.04	1.04	1.25
157.5	1.04	1.04	0.84	0.84	1.04	0.84	0.84	1.04	1.25
180.0	0.84	0.84	0.84	1.04	1.04	0.84	1.04	0.84	0.84
202.5	1.04	1.04	1.25	1.04	1.04	1.04	1.04	1.25	1.25
225.0	1.04	1.25	1.04	1.04	1.04	1.25	1.25	1.04	1.04
247.5	1.25	1.04	1.04	1.25	1.25	1.25	1.25	1.04	1.25
270.0	1.04	1.25	1.25	1.25	1.04	1.04	1.04	1.25	1.25
292.5	1.25	1.04	1.25	1.25	1.46	1.25	1.04	1.04	1.25
315.0	1.25	1.25	1.25	1.04	1.25	1.25	1.25	1.25	1.25
337.5	1.25	0.84	1.04	1.04	1.04	1.25	1.04	1.25	1.25
360.0	0.21	0.42	0.21	0.21	0.42	0.00	0.42	0.21	0.42

Intensity data(cd)

C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	0.42	0.42	0.63	0.63	0.63	1.25	1.25	1.25	1.04
22.5	0.84	1.04	1.25	1.67	1.67	1.88	2.09	1.88	1.88
45.0	0.84	1.25	1.46	1.67	1.67	1.88	2.30	1.88	2.09
67.5	1.25	1.04	1.25	1.67	1.88	1.88	1.88	2.09	2.30
90.0	1.25	1.46	1.25	1.67	1.67	1.88	1.88	1.88	1.88
112.5	1.04	1.25	1.46	1.88	1.88	1.88	1.88	1.67	2.09
135.0	1.25	1.25	1.67	1.67	1.67	1.88	2.09	2.09	2.09
157.5	1.04	1.46	1.25	1.46	1.88	1.67	1.88	2.09	2.09
180.0	1.04	1.25	1.25	1.67	1.67	1.88	1.88	2.09	2.09
202.5	1.25	1.25	1.46	1.67	1.88	2.09	1.88	1.88	2.30
225.0	1.25	1.46	1.88	1.67	2.09	1.88	2.09	2.09	2.09
247.5	1.46	1.25	1.46	1.46	1.46	1.67	1.88	2.09	2.30
270.0	1.04	1.46	1.46	1.67	1.88	1.67	1.88	1.88	2.09
292.5	1.04	1.46	1.67	1.67	1.67	1.88	2.09	1.88	2.09
315.0	1.25	1.25	1.67	1.46	1.88	1.88	1.88	1.88	1.88
337.5	1.04	1.25	1.67	1.67	1.67	1.88	1.88	1.88	2.09
360.0	0.42	0.42	0.63	0.63	0.63	1.25	1.25	1.25	1.04

C/γ(°)	180.0
0.0	2.09
22.5	2.09
45.0	2.09
67.5	2.09
90.0	2.09
112.5	2.09
135.0	2.09
157.5	2.09
180.0	2.09
202.5	2.09
225.0	2.09
247.5	2.09
270.0	2.09
292.5	2.09
315.0	2.09
337.5	2.09
360.0	2.09